

### **REMARKS**

Applicant respectfully requests reconsideration. Claims 10, 13-26, 78, 198 and 199 were previously pending in this application. By this amendment, Applicant is canceling claim 14 and withdrawn claims 32, 53 and 158 without prejudice or disclaimer. Claims 10, 13, 78 and 198 have been amended for clarification purposes. New claims 200-214 have been added. Support for the new claims can be found at least in claims 10, 13, 15-26 and 78 as originally filed. As a result, claims 10, 13, 15-26, 78 and 198-214 are pending for examination with claims 10, 78, 198, 200 and 214 being independent claims. No new matter has been added.

#### **Double Patenting Rejection**

The Examiner rejected claims 78, 198 and 111 on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1 and 11-20 of U.S. Patent No. 7,211,240.

Applicant notes that it may remove the rejection with a terminal disclaimer when the claims are otherwise indicated as allowable. *See* MPEP § 804.02.

#### **Rejections under 35 U.S.C. §112, second paragraph**

The Examiner rejected claims 10, 13-26 and 78 under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

According to the Examiner, claims 10 and 78 describe the variables  $Z_1$  and  $Z_2$  as a polypeptide. Further, according to the Examiner, it is unclear how one amino acid can be a polypeptide. Applicant respectfully disagrees. A person of ordinary skill in the art would understand the metes and bounds of the rejected claims. However, without conceding to the Examiner's position and merely in the interest of expediting prosecution, Applicant has amended claims 10 and 78. The amended claims no longer refer to a  $Z_1$  or  $Z_2$ . In addition, Applicant has introduced new claims 200 and 214, which include the recitation " $Z_1$  is any amino acid or sequence of amino acids, or is absent" and " $Z_2$  is any amino acid or sequence of amino acids, or is absent".

According to the Examiner, claim 78 also describes a polypeptide at the termini of at least one amino acid and it is unclear how a polypeptide could be one amino acid. Applicant respectfully disagrees. A person of ordinary skill in the art would understand the metes and bounds of the rejected claim. However, without conceding to the Examiner's position and merely in the interest of expediting prosecution, Applicant has amended claim 78 to include the recitation "wherein, the sequence can optionally have a N-terminal amino acid or polypeptide, a C-terminal amino acid or polypeptide, or an amino acid or polypeptide at both termini". Applicant has amended claim 10 in similar fashion.

According to the Examiner, claim 13 describes a peptide as being one amino acid and it is unclear how a peptide is one amino acid. Applicant respectfully disagrees. A person of ordinary skill in the art would understand the metes and bounds of the rejected claims. However, without conceding to the Examiner's position and merely in the interest of expediting prosecution, Applicant has amended claim 13 to include the recitation "wherein the polypeptide further comprises N-terminal and/or C-terminal flanking amino acids or peptides".

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Rejections Under 35 U.S.C. §112, first paragraph

The Examiner rejected claim 14 under 35 U.S.C. §112 as allegedly failing to comply with the written description requirement. According to the Examiner, the claim contains subject matter, which was not described in the specification in such a way as to reasonably convey to one of skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicant respectfully disagrees. Based on the specification a person of ordinary skill in the art would understand that Applicant had possession of the invention at the time of filing of the application. However, without conceding to the Examiner's position and merely in the interest of expediting prosecution, Applicant has canceled claim 14.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. §102

The Examiner rejected claims 78 and 198 under 35 U.S.C. §102 as allegedly being anticipated by U.S. Patent No. 5,723,584 to Schatz. According to the Examiner, Schatz describes a peptide sequence that comprises the sequence Ala-Gln-Lys-Val-Glu (SEQ ID NO:71), which encompasses the sequence disclosed in claim 78. In addition, according to the Examiner, for claim 198, the phrase “comprising an amino acid sequence of” is interpreted to encompass any sequence within the SEQ ID NOs. Therefore, the sequence Ala-Glu is an amino acid sequence of SEQ ID NO:304.

Applicant respectfully disagrees. However, without conceding to the Examiner’s position and merely in the interest of expediting prosecution, Applicant has amended claim 78 and deleted the language referring to Consensus Sequence 13. The remaining Consensus Sequence 14 is not taught by Schatz. In addition, Applicant has introduced new claim 214, which relates to a modified Consensus Sequence 13. The modified Consensus Sequence 13 of claim 214 no longer includes  $X_1=\text{Ala}$ ,  $X_2=\text{Ala}$ ,  $X_3=\text{Ala}$  or  $X_3=\text{Lys}$ . Accordingly, the Consensus Sequence 13 of claim 214 is not taught by Schatz.

Applicant has amended claim 198 to clarify that the isolated peptides comprise *the* amino acid sequence of SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, or SEQ ID NO:310. Schatz does not teach isolated peptides comprising the amino acid sequences of claim 198, and Schatz therefore does not anticipate claim 198.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. §102 or §103

The Examiner rejected claims 10 and 13-17 under 35 U.S.C. §102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 5,723,584 to Schatz.

According to the Examiner, Schatz describes a peptide that comprises the sequence Ala-Gln-Lys-Val-Glu as disclosed in claim 10. In addition, according to the Examiner, Schatz et al. describes the labeling of peptides.

Applicant respectfully disagrees. However, without conceding to the Examiner's position and merely in the interest of expediting prosecution, Applicant has amended claim 10 and deleted the language referring to Consensus Sequence 13. The remaining Consensus Sequence 14 is not taught by Schatz. In addition, Applicant has added new claim 200, which relates to a modified Consensus Sequence 13. The modified Consensus Sequence 13 of claim 200 no longer includes  $X_1=\text{Ala}$ ,  $X_2=\text{Ala}$ ,  $X_3=\text{Ala}$  or  $X_3=\text{Lys}$ . Accordingly, the Consensus Sequence 13 of amended claim 200 is not taught or suggested by Schatz.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

#### Rejections Under 35 U.S.C. §103

The Examiner rejected claims 18-22 and 26 under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 5,723,584 to Schatz as applied to claims 10 and 13-17 above, and in further view of Reubi (U.S. Patent No. 6,312,661). According to the Examiner, Schatz discloses the labeling of peptides comprising the consensus sequence Ala-Gln-Lys-Val-Glu. Further, according to the Examiner, Schatz does not disclose the use of selected radionuclides, paramagnetic metal ions, or chelators. Also, according to the Examiner, Reubi discloses the use of radioactive halogen atoms being attached to a Tyr residue on a peptide sequence or by labeling with a paramagnetic metal ion by means of a chelating group.

Applicant respectfully traverses. The combination of the teachings of Schatz and Reubi does not provide all the elements of the rejected claims. As demonstrated above, Schatz does not teach or suggest the Consensus Sequence 13 of the amended claims. The teachings of Reubi pertain to the use of radioactive halogen atoms and paramagnetic metal ions and Reubi does not supply the missing teaching, namely the Consensus Sequence 13 of the amended claims. Thus, the combination of the teachings of Schatz and Reubi does not provide all the elements of the rejected claims and the combination of the teachings of Schatz and Reubi does not render obvious the rejected claims.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

The Examiner rejected claims 23-25 under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 5,723,584 to Schatz as applied to claims 10 and 13-17 above, and in further view of Wescott et al. (U.S. Patent No. 6,984,373). According to the Examiner, Schatz discloses the labeling of peptides comprising the consensus sequence Ala-Gln-Lys-Val-Glu. Further, according to the Examiner, Schatz does not disclose the use of ultrasound contrast agent label with a fluorinated gas. Also, according to the Examiner, Wescott et al. discloses the use of ultrasound contrast agent label with a fluorinated gas.

Applicant respectfully traverses. The combination of the teachings of Schatz and Wescott et al. does not teach or suggest all the elements of the rejected claims. As demonstrated above, Schatz does not teach the Consensus Sequence 13 of the amended claims. The teachings of Wescott et al. pertain the fibrin binding peptides and their uses and Wescott et al. does not supply the missing teaching, namely the Consensus Sequence 13 of the amended claims. Thus, the combination of the teachings of Schatz and Wescott et al. does not provided all the elements of the rejected claims and the combination of the teachings of Schatz and Wescott et al. does not render obvious the rejected claims.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

### **CONCLUSION**

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. D0617.70012US00.

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Respectfully submitted,

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